

REMARKS

In the Office Action the Examiner objected to the drawings as being informal. However, in a Notice to File Corrected Application Parts which was mailed March 23, 2004, a requirement was imposed that formal drawings be filed. Formal drawings, responsive thereto, were filed May 21, 2004. It is requested that the Examiner consider the set of formal drawings which were filed by First Class Mail May 21, 2004 as a full response to the requirement for replacement drawings. In the event that the formal drawings filed May 21, 2004 have not been entered into the Patent Office file Applicant is prepared to refile same.

Further responding to the Office Action, claims 1, 3, 43 and 44 have been amended. Claims 3, 43 and 44 have been rewritten in independent form as to address the objection made by the Examiner thereto. None of claims 1, 2, 4-25, 27 or 28 are anticipated by Tice as explained below. Hence, all of those claims are allowable.

Tice addresses inclusion of delays so as to minimize the generation of false alarms. For example, as illustrated in Fig. 5 thereof, a delay signal, graph f thereof, has been generated in response to humidity and ambient temperature considerations which acts to eliminate a potential alarm during period 64, graph a thereof. Both the output signal from photo sensor 52, graph a of Fig. 5 as well as the delay/inhibit signal of Fig. f thereof fail to correspond to the types of signals addressed by the structures of claims 1, 2, 4-25, 27 and 28 as currently pending.

For example, as described by Tice:

"A multiple sensor detection apparatus includes a first sensor for purposes of detecting the presence of a selected ambient condition such as potential or actual fire condition as well as a second sensor for detecting a different environmental condition. An output from the first sensor, indicative of a fire or gas condition, is enabled only in the absence of an output from the second, environmental. An important benefit of minimizing false alarms is achieved thereby." (Col. 1, Ins. 41-49 Tice)

The above clearly describes a structure quite unlike the structures of pending claims 1, 2, 4-25, 27 and 28. Hence, none of those claims are anticipated by Tice.

Further, relative to claims 21-25, 27 and 28, the structure of Tice clearly is not anticipatory. In rejecting those claims as anticipated, on page 5 of the Office Action the Examiner stated that:

"a processor that receives the first and second signals, the processor using the first signal to alter a delay time associated with the second sensor"
(Page 5 Office Action, Ins. 10-12)

The above noted phraseology is with respect to Fig. 3 of Tice. Fig. 3 of Tice includes photo detector 52 and humidity detector 54. Humidity detector 54 is coupled via line 54a to an output of photodetector 52. However, processor 40 of Tice does not receive the first and second signals as noted above by the Examiner. Rather, humidity detector 54 exhibits a low output impedance in the presence of humidity above a predetermined level. This overrides any output signal from photodetector 52. In this case the processor 40 is only responding to a signal from humidity detector 54. In the absence of humidity, the humidity detector 54 exhibits a high output of impedance. In this state, the control electronics 40 is responding only to an output from photodetector 52. Thus, Tice discloses control circuitry 40 which does not receive "first and second signals" as asserted by the Examiner in support of the outstanding anticipation rejection. Rather, the control electronics 40 of Tice receives either a signal from humidity detector 54 (low output impedance) or a signal from photodetector 52 (humidity detector 54 exhibiting a high output impedance) but not both. Thus for at least the above additional reasons none of claims 21-25, 27, 28 are anticipated by Tice.

The above-described characteristics of Tice alone or combined with Muller fail to make obvious any of claims 26, 42, 45-52. Relative to claim 6, and in support of the rejection thereof the Examiner stated on page 6 of the Office Action that:

"Regarding claim 26, Tice discloses all the limitations in claim 21"

As described above Tice discloses different detectors than claimed and does not disclose all of the limitations of claim 21. Hence for at least the reasons set forth above relative to claim 21, Tice alone or in combination with Muller teaches away from and does not render claim 26 as obvious. Further, the Examiner has identified no suggestion, teaching or motivation in Tice or Muller alone or in combination, that would lead one of skill in the art to modify Tice so that it "discloses all the limitations of claim 21" as asserted by the Examiner.

In rejecting our claims 42 and 45-54 it is obvious the Examiner has combined the methods of circuits of Figs. 3 and 4 of Tice which are quite different from one another and also quite unlike the subject claims. The Examiner's reference on page 7, first full paragraph thereof to:

"sensing a hazard parameter indicative of by-products of combustion in the region (Col. 4, lns. 8-14)"

Refers to a discussion of the structure of Fig. 3 of Tice. Those lines state:

"An output from the photodetector, on a line 52a, an indicium of a presence of a predetermined level of combustion of products, indicative of a developing or actual fire condition is inhibited in the electronics 40 for a predetermined period of time. In the absence of a predetermined level of humidity, the output of the line 54a exhibits a high impedance." (Col. 4, lns. 8-14 Tice)

As noted above the above described text is in connection with describing operation of the structure of Fig. 3 of Tice. The Examiner then immediately incorporates portions of a description of Fig. 4 of Tice (a different circuit) namely:

"sensing a thermal parameter in the region (col. 4, lines 60-64); evaluating that thermal parameter for indication of elevated heat in the region (thermal sensor measures a temperature above 135 degrees, (col. 4, lines 60-64))"

The above text is in connection with a discussion of the structure illustrated in Fig. 4 of Tice. It is indisputable that the structure of Fig. 3 of Tice exhibits a different mode of operation than does the structure of Fig. 4. Merely picking and choosing partial descriptions of this structure of Fig. 3 and partial descriptions of the structure of Fig. 4 is not sufficient to support a proper *prima facie* case of obviousness alone or in combination with the teachings of Muller. Clearly no suggestion, teaching or motivation has been identified as to why one of skill in the art would combine and modify two different methods of Tice as has been done by the Examiner in rejecting the subject claims.

Further, in both Figs. 3, 4 of Tice the only sensing of radiant energy takes place in the photodetector 52. Humidity detector 54 responds to airborne humidity and as noted in Tice:

"Photoelectric detectors are known to be susceptible and to provide false alarms in the presence of high humidity. The apparatus 50 also includes a humidity detector 54." (Col. 3, ln 66-Col. 4, ln 1 Tice)

As noted above, the humidity detector of Fig. 3 of Tice is intended to sense instances of high airborne humidity which has been recognized as contributing to false alarms in photoelectric detectors. Thus, the sensing of humidity in Tice is quite unlike the claimed methodology which requires at least:

"sensing a hazard parameter indicative of by-products of combustion in the region"

Neither Tice nor Muller alone or in combination provide any suggestion, teaching or motivation to one of skill in the art to modify the structures of either Fig. 3 or Fig. 4 of Tice so as to make any of claims 42, and 45-52 obvious.

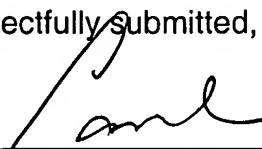
Appl. No 10/670,016
Amendment B
Reply to Office Action mailed May 4, 2005

For at least the above reasons, the pending claims are all allowable and allowance of the application is respectfully requested.

Respectfully submitted,

Dated: July 29, 2005

By



Paul M. Vargo
Reg. No. 29,116
WELSH & KATZ, LTD.
120 South Riverside Plaza, 22nd Floor
Chicago, Illinois 60606
Phone: (312) 655-1500
Fax: (312) 655-1501